1	COMBINED DIVERSE SWITCHES (E.G., MANUAL-ACTUATED AND ART TYPE)	27	Automatic combined with manual
2	ELECTROMAGNETICALLY ACTUATED SWITCHES	28	Automatic combined with timing or delay means
3	.Utilizing magnetostrictive elements	29 30	Fluid-controlledMechanical motor-controlled
4	.Radio frequency switch (e.g., T/R switch)	31	<pre>(e.g., clock movement)Thermally actuated</pre>
5	With coaxial components	32	With counting or integrating
6	.Automatic circuit-interrupting devices (e.g., circuit-protective devices)	33	<pre>means (e.g., repetitive for given number of reclosures) With means providing for</pre>
7	<pre>Responsive to plural diverse circuit conditions (e.g., voltage and current)</pre>		operation after variable intervals or fixed intervals of different duration (e.g., first reset occurs)
8	Multipole or polyphase		instantaneously, with other at
9	With individual latch or trip means in each leg	2.4	longer intervals)
10	With common latch or trip	34	With lockout
	means	35	Plural trips or combined
11	Plural switches		operating means for single
12	With shunting contacts		trip (e.g., magnetic with
13	With auxiliary switch means	2.6	thermal)
	(e.g., for energizing coil)	36	With common structural elements
14	With direct connected contact separating means	37	With thermal element
15	With contact biasing, holding		comprising magnetic flux source
	or pressure control means	38	Magnetic
16	<pre>Magnetic or electrodynamic (e.g., blowon or blowoff)</pre>	39	With time delay (e.g., thermal)
17	With switch condition	40	Responsive to or
	signalling, indicating or alarm means	40	proportional to degree of overload condition
18	<pre>Responsive to predetermined or abnormal current condition (e.g., direction, phase angle</pre>	41	With magnetic flux winding directly in series with main contacts
	or amplitude)	42	With adjusting or calibrating
19	Zero current		means
20	Voltage responsive (under, over	43	Thermal
	or no voltage)	44	Including ambient temperature
21	With latch or trip means		compensating means
22	Plural latch or combined latch operating means for single	45	With regulating, adjusting or calibrating means
0.0	latch	46	With contact rebound or other
23	<pre>With diverse-type actuating means (e.g., magnetic and thermal)</pre>		undesirable motion prevention means
24	Trip-free (i.e., cannot be manually reclosed while	47	.Utilizing conductive liquid (e.g., mercury)
	overload exists)	48	Comprising three or more
25			electrodes or circuit-
25	With disabling means (for contact-actuator)		completion means
26	·	49	With liquid-displacement means
26	Reclosing or resetting		

335 - 2 CLASS 335 ELECTRICITY: MAGNETICALLY OPERATED SWITCHES, MAGNETS, AND ELECTROMAGNETS

50	Comprising plural	84	Magnetic structure (e.g.,
	interconnected liquid		saturable)
	containers	85	Pole structure
51	Magnetic	86	With adjusting means
52	Piston or plunger	87	.Periodic (e.g., vibrators)
53	Combined with timing or	88	Plural periodic switches or
	delay means		with plural pairs of contacts
54	Tiltable or rotating liquid	89	Selectively, alternately, or
	chamber		consecutively actuated
55	Armature structure	90	With vibrating or oscillating
56	Comprising freely movable		element damping, frequency
	floating slug or mass		adjusting or vibration control
57	Contact or electrode structure	91	Actuating magnet structure or
58	Mercury or mercury wetted		material
59	.Retarded or delayed type	92	Plural magnets
60	Plural sets of contacts	93	Vibratory reed or other
	alternately, consecutively or		periodic contact actuator
	selectively opened or closed	94	Tuned or resonant at a
61	With pneumatic delay means		particular frequency
	(e.g., dashpot, etc.)	95	Armature
62	With hydraulic delay means	96	Adjustable
63	With magnetic or	97	Contact arrangement or
	electromagnetically actuated		composition
	delay means	98	Adjustable contacts
64	With mechanical delay means	99	.Alternating or fluctuating
65	Motor or motor-controlled		current type
	(e.g., clockwork)	100	Induction or eddy current
66	Electrothermal delay means		(e.g., vane or closed
67	Adjustable or regulatable		conductive loop)
68	.With motor	101	Preselected or synchronous
69	Reversible or oscillatable		frequency responsive
70	Frequency-responsive or	102	Polyphase
	synchronous	103	With plural magnetic-actuating
71	Contact actuating structure		structures
72	Plural contacts	104	With chatter, bounce or
73	Eccentric or cam		vibration-prevention means
74	Including brake, clutch or	105	With damping or adjustment
	detent		means
75	Magnetically actuated	106	.Multiple contact type
76	Comprising energy storage	107	Contacts-selectively,
	means (e.g., wound spring)		sequentially, alternately, or
77	With locking, latch or tripping		intermittently actuated
	structure	108	Automatic telephone type
78	.Polarity-responsive	109	Plural or multidirection
79	Storage or memory type (e.g.,		mechanical selector motions
	bistable)	110	With motion-conversion means
80	Armature structure	111	Selector structure
81	Freely movable within coil or	112	Crossbar type
	magnetic field between poles	113	With holding, locking or
82	Floating (i.e., no fixed		latching means
	pivot)	114	Rotary selector motion
83	Contact structure of	115	Reciprocating selector motion
	composition		(e.g., sliding)

restoring means 117With operational mode-varying means 118Motor-driven 119Plural armatures 120With interlocking or mechanical connection 121Contact-actuation means 122With rotary or compound motion device (e.g., rack and pinion) 123Pawl and ratchet 125Rotary armature 126Rotary armature 127Simultaneously actuated 128By pivotal or rockable armature 129Movable contacts or slidable card bar or comb 130Movable contacts or slidable card bar or comb 131By reciprocating armature 132With adjustable, replaceable or interchangeable structural reatures 133Contact structure or arrangement 134Grid or coordinate 135In pile or stack 136With protective means for a contacts 137Rotary armature 138By pivotal or rockable 149Movable contacts or slidable 150Movable contacts or slidable 151With unitary housing, sur or flux path 152With adjustable, replaceable or interchangeable structural reatures 158In pile or stack 159In pile or stack 150With prmanent magnet str actuating means (e.g., sake reed) 150With protective means for actuator or or contacts 150With protective means for actuator or or or contacts 150With protective means for actuator or with actuator or or contacts 150With protective means for actuator or or contacts 150With protective means for actuator or or or contacts 150With protective means for actuator or or or contacts 150With protective means for actuator or or or contacts 151Grad are contacts on circuat for or contacts 150With cooperative-actuating means 161With unitary or common magnetic expensive device expensive or flux source 162With actuating means 163With protective means for suitaring means 164With electromagnet for flux sou				
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142Fusible element 176With adjusting or regular means 143Independently operative means 144With armature positioning or 177 .Plural magnets or flux sour adjusting 178Of diverse electrical characteristics 145Bimetallic element characteristics 146Thermomagnetic (e.g., device whose magnetic permeability characteristics (e.g., permanent plus electroma permanent plus electroma 147 .Electrodynamically actuated 180With common core or single	141	.With electrothermal-actuating	175	Utilizing hammer or other
143Independently operative means 144With armature positioning or adjusting 178Of diverse electrical characteristics 145Bimetallic element characteristics 146Thermomagnetic (e.g., device whose magnetic permeability changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single		means (e.g., expansible wire)		impacting means
144With armature positioning or adjusting 178Of diverse electrical characteristics 145Bimetallic element characteristics 146Thermomagnetic (e.g., device whose magnetic permeability changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single	142	Fusible element	176	With adjusting or regulating
adjusting 178Of diverse electrical characteristics 145Bimetallic element characteristics 146Thermomagnetic (e.g., device whose magnetic permeability characteristics (e.g., changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single	143	Independently operative		means
145Bimetallic element characteristics 146Thermomagnetic (e.g., device whose magnetic permeability characteristics (e.g., changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single	144	With armature positioning or	177	.Plural magnets or flux sources
146Thermomagnetic (e.g., device 179Of diverse magnetic characteristics (e.g., changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single		adjusting	178	Of diverse electrical
whose magnetic permeability characteristics (e.g., changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single	145	Bimetallic element		characteristics
changes with temperature) permanent plus electroma 147 .Electrodynamically actuated 180With common core or single	146	Thermomagnetic (e.g., device	179	
147 .Electrodynamically actuated 180With common core or single		whose magnetic permeability		
		changes with temperature)		<pre>permanent plus electromagnet)</pre>
	147	.Electrodynamically actuated	180	With common core or single
148Moving coil type armature	148			
149Plural coils 181Pivoted armature	149	Plural coils	181	Pivoted armature
150With reset or restoring means	150	With reset or restoring means		

335 - 4 CLASS 335 ELECTRICITY: MAGNETICALLY OPERATED SWITCHES, MAGNETS, AND ELECTROMAGNETS

182	Magnetic fields opposing	213	With coil structure
183	<pre>(e.g., differential)Magnetic fields or torques</pre>	214	With electric or magnetic- shielding means
103	_	215	_
	acting alternately in opposite directions		.Magnetostrictive-type device
184		216	.Superconductive type
104	With plural reciprocating	217	.Temperature-responsive type
	armatures aligned or rigidly		(e.g., temp. compensation
105	connected	010	means)
185	.Contact-actuating means	218	With time-delay means
186	<pre>Plural or combined (e.g., manual with other)</pre>	219	.Combined with diverse-type art device
187	Unitary with armature	220	.With magneto-mechanical motive
188	Snap-action		device (e.g., electromagnet
189	Mechanical linkage		with armature)
190	Including cam, roller or	221	Frequency-responsive type
	eccentric means	222	With relatively movable coil
191	<pre>Compound motion device (e.g., toggle)</pre>		and permanent magnet (e.g., D'Arsonval type) position on
192	With biasing means (open or		the cathode ray tube)
172	closed)	223	With relatively movable
193	With vibration-, bounce- or	223	conductors (e.g., dynamometer)
100	chatter-prevention means	224	Induced current-type movable
194	With pressure-maintaining or	221	conductor (e.g., eddy current
174	adjusting means		member)
195	Magnetic or electrodynamic	225	Rotating disk
173	force	226	Short-circuited winding
196	.Contact composition or structure	227	Saturable magnetic type
197	Adjustable or readily	228	With motion-conversion means
191	detachable of readily	220	(e.g., reciprocating to rotary
198	Convertible from normally open		motion)
170	to normally closed and vice	229	With permanent magnet
	versa	230	Polarized electromagnet
199	Printed circuit	231	Varying alternating current
200	Pivoted or relatively movable		amplitude responsive
	independently of the armature	232	With plural armatures
201	.With arc-suppression or	233	With armature-locking means
201	extinguishing means	234	With reversible magnetic
202	.With housing or support means	231	flux-type movement (e.g.,
203	.With armature structure		bistable type)
204	.Through conductor type (i.e.,	235	With vibrating reed or spring
201	conductor field actuates		bar-type armature
	armature)	236	With a shunt path for magnetic
205	PERMANENT MAGNET-ACTUATED		flux
	SWITCHES	237	Adjustable
206	.Plural switches	238	With auxiliary armature-
207	.Plural magnets		movement control means (e.g.,
208	.Thermomagnetic		manual)
209	MAGNETS AND ELECTROMAGNETS	239	With time delay armature-
210	.Electron or ion beam deflecting	-	movement control means
210	type	240	Dashpot type
211	With magnetic shunt	241	Auxiliary control coil
212	With adjustable magnetic	242	With plural armatures
<u> </u>	element (e.g., to change the		selectively retarded
	air gap, or its position on	243	Alternating current type
	the cathode ray tube)		
	one cachoac ray cabe,		

244	Flux phase displacement or varying means	272	Rotating disk or cylindrical armature
245	Shading coil	273	With armature-adjusting means
246	Plural winding type	2,3	(e.g., means to adjust the
			relative distance between core
247	With chatter- or noise-		and armature)
	preventing means	0.7.4	,
248	Spring or cushion-type	274	With armature-biasing means or
	vibration absorber		bias-adjustment means
249	Special armature construction	275	Hinge joint type armature-
	or mounting means (e.g., to		mounting means
	assure positive seating of	276	Pivot support type armature-
	armature)		mounting means
250	Coil construction or mounting	277	With shock absorption,
250	_	2 / /	vibration or bounce-preventing
0.51	means		
251	With plunger-type armature	0.770	means
252	With vibrating armature	278	With casing or enclosure
253	With armature latch means	279	Armature shape, structure or
	(e.g., means to retain		material
	armature in open or closed	280	Balls, filings or granular
	position		material
254	With latch-control winding	281	Core or pole shape, structure
255	With plunger-type armature		or material
256	Plural coils controlling a	282	Coil shape, structure or
230	_	202	material
0.5.5	single armature	0.00	
257	With shock-absorbing means	283	.Blade sharpening or conditioning
	(e.g., means to absorb the		type magnets
	shock of armature or plunger)	284	.For magnetizing or demagnetizing
258	With armature stroke	285	.Work or object holding type
	adjustment	286	With workpiece to magnet
259	Plural plungers		adapted or fixture (e.g., to
260	With sealed enclosure (e.g.,		bridge flux)
	dust or moistureproof)	287	Angularly adjustable fixture
261	Armature structure or material	288	Rotary-type magnetic chuck
262		200	(permanent or electromagnet
202	With centering or aligning or		
0.50	guiding means	0.00	type)
263	With plunger rotation	289	Electromagnet type (e.g.,
	preventing means (e.g., means		electromagnetic chuck)
	to prevent undesired rotation	290	With circuit control means
	of the plunger during	291	Lifting or attracting type
	movement)		(e.g., for lifting pigiron or
264	Sectional plunger		pulling hairpins)
265	Plural armatures actuated by	292	Hermetically sealed or
	single electromagnetic coil		moisture-proofed
266	Plural coils or magnets control	293	Hand-held type
200	armature movement	294	
0.67			With outer casing or housing
267	With plural armatures	295	With magnetic-hold control
268	Coils or magnets being		means (e.g., means to control
	separately or selectively		the hold strength)
	controllable	296	.Magnet structure or material
269	With dynamically balanced	297	Core structure
	armature	298	Movable or adjustable cores
270	Armature-mounting means	299	Coil structure or material
271	With armature bounce or	300	With cooling means
_	vibration-preventing means	301	With electric- or magnetic-
	proventing means	201	
			shielding means

335 - 6 CLASS 335 ELECTRICITY: MAGNETICALLY OPERATED SWITCHES, MAGNETS, AND ELECTROMAGNETS

302	Permanent magnets
303	Enclosed in flexible plastic
	cloth or tape
304	With flux leakage-reducing
	means
305	Magnetic plug type (e.g.,
	crankcase plug)
306	Plural magnets

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